

The opinion in support of the decision being entered today was not written
for publication and is not binding precedent of the Board.

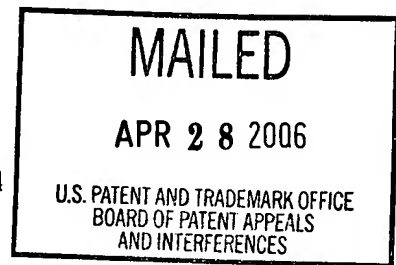
UNITED STATES PATENT AND TRADEMARK OFFICE

**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte ODED BEN-ARIE

Appeal No. 2006-1142
Application No. 10/027,094

ON BRIEF



Before KRASS, RUGGIERO, and BARRY, Administrative Patent Judges.
KRASS, Administrative Patent Judge.

DECISION ON APPEAL

This is a decision on appeal from the final rejection of
claims 1-3.

The invention pertains to a head mounted display for use by a pilot of an aircraft. In particular, the invention moves a primary flight display (PFD), via an electronic interface, from the electronic Flight Instrument System (EFIS), in the instrument panel, into the pilot's personal head up display (HUD) linked to his/her flight glasses and in his/her field of sight, no matter which direction the pilot is looking.

Independent claim 1 is reproduced as follows:

1. A system for providing a pilot of an airplane equipped with an Electronic Flight Instrument System (EFIS) data output port with a display of primary flight instruments that can be viewed while the pilot's eyes are focused at infinity through the aircraft windshield, comprising:

a computer;

means for connecting the computer to said data output port on the aircraft's instrument panel; and an eyeglass mounted, clip-on, display operative to receive the output of the computer,

the computer being operative to process the information from the electronic flight instrument system outlet port into a single display, focused at infinity, which incorporates outputs from all of the principal flight instruments.

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The examiner relies on the following references:

Lewis	4,028,725	Jun. 7, 1977
Kubik	4,753,514	Jun. 28, 1988
Schoolman	5,281,957	Jan. 25, 1994

Claims 1-3 stand rejected under 35 U.S.C. § 103 as being unpatentable over Schoolman, Kubik and Lewis.

Reference is made to the brief and answer for the respective positions of appellant and the examiner.

OPINION

At the outset, we note that all claims will stand or fall together, in accordance with appellant's statement at page 3 of the revised brief of August 9, 2005 (hereafter, the "brief"). Accordingly, we focus on independent claim 1.

At pages 4-5 of the answer, the examiner points out how she considers Schoolman's disclosure to correspond to the instant claimed elements, noting, at page 5, that Schoolman does not specifically mention that the computer processes all of the information from principal flight instruments in order to produce a single display.

The examiner turns to Lewis for a teaching that an entire cockpit instrument panel, displayed on a helmet, is directly in front of a pilot's eyes (column 8, lines 17-19 and Figure 9B). The examiner points out that while Lewis does not use the term EFIS, "it is well known in the art that EFIS is a common component of the cockpit instrument panel" (answer-page 5).

The examiner further argues that Lewis discloses a data output port between the instrument panel and the helmet, specifically pointing to Figures 8A and 8B, and the connection point between the camera 84 and the CRT's 26 and 28; (column 8, lines 11-16, and column 9, lines 7-13).

It is the examiner's contention that it would have been obvious "to include the entire cockpit instrument display panel onto a single display viewed by a pilot such as on a pair of eyeglasses" because such a combination would "enhance the safety of the pilot and the passengers by the pilot being able to view all the instrument parameters at a single glance and, as Lewis points out, to conserve space in the cockpit area (col. 9, lns 24-30)" (answer-page 5).

Moreover, the examiner adds Kubik to the combination to show that a hinge mounted device may also be a clip-on device, noting that the display in Kubik is clip mounted to the frame of a pair of eyeglasses (column 3, lines 1-6, Figure 1, items 18 and 19).

Appellant argues that Schoolman limits the display to navigation equipment rather than the principal flight instruments, and that Lewis shows an entire cockpit instrument panel displayed on a helmet. Appellant contrasts this with the instant claimed invention which is limited to the use of an EFIS data output port, arguing that none of the applied references disclose an aircraft equipped with such a port. Though appellant admits that such ports are known, he argues that the known ports are intended for maintenance purposes and not for a display purpose, as claimed.

Thus, the issue before us is whether it would have been obvious to use the information from the output port of an EFIS to generate a head-up display to a clip-on device for eyeglasses.

We have reviewed the evidence before us, including, inter alia, the disclosures of the references and the arguments of appellant and the examiner and we conclude therefrom that the examiner has presented a prima facie case of obviousness with regard to the instant claimed subject matter that has not been successfully rebutted by appellant. Accordingly, we will sustain the rejection of claims 1-3 under 35 U.S.C. § 103.

Lewis clearly teaches that a scene appears on the display appearing in front of the pilot's eyes (column 8, lines 17-19). That scene is not specifically taught as being from an EFIS. However, even appellant admits that the information displayed by Lewis may be the "entire cockpit instrument panel" (brief-page 4). It is clear to us that if a reference discloses the display of an entire cockpit instrument panel on a head-up display, the artisan would have understood that any portion of that cockpit instrument panel may just as obviously been displayed, subject to whatever portion the designer deemed necessary and proper. An EFIS output would have been merely one of many equally obvious instruments one might choose to observe.

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We find nothing unobvious about appellant's choosing to display less than Lewis taught as a display. As far as the argument that the known EFIS output ports were only used for maintenance purposes, while appellant uses the ports for a display purpose, we find this to be unpersuasive in view of Lewis providing for a display from an output port of the instrument panel. As the examiner explains, there is some inherent output port since the information from Lewis' instrument panel is processed and sent to the head-up display. Thus, Lewis does provide for a "computer being operative to process information from the electronic flight instrument system outlet port into a single display," as claimed. Again, while Lewis may not explicitly mention EFIS, these are well known systems in aircraft instrument panels, and if Lewis teaches displaying the entire cockpit instrument panel, then the artisan would have understood the EFIS to be part of that overall cockpit instrument panel, with information from the EFIS also being provided to the display in Lewis. Accordingly, it would have been obvious to the artisan that one may clearly display information from only EFIS as well as from the entire cockpit instrument display or any other part thereof.

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The examiner's decision is affirmed.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR § 1.136(a)(1)(iv).

AFFIRMED


ERROL A. KRASS)
Administrative Patent Judge)

JOSEPH F. RUGGIERO
Administrative Patent Judge

BOARD OF PATENT
APPEALS
AND
INTERFERENCES

~~LANCE~~ LEONARD BARRY
Administrative Patent Judge

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